

PE NUMBER: 0604442F

UNCLASSIFIED

PE TITLE: Space Based Infrared Sys(SBIRS) Low

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604442F Space Based Infrared Sys(SBIRS) Low				PROJECT 4598		
COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4598 SBIRS Low Element EMD	0	33,218	77,651	147,933	291,138	623,198	770,787	492,080	456,300	2,892,305
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	3	3

(U) A. Mission Description
 (U) The Space-Based Infrared System's (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the US, its deployed forces or its allies. SBIRS will incorporate new technologies to enhance detection; improve reporting of ICBM, SLBM and tactical ballistic missiles; and provide critical mid-course tracking and discrimination data for national and theater missile defense. This system will provide increased performance in order to meet requirements in US Space Command's Capstone Requirements Document and Operations Requirements Document. SBIRS will consist of satellites in Geosynchronous Orbits (GEO), Highly Elliptical Orbits (HEO) and Low Earth Orbits (LEO) and an integrated centralized ground station serving all SBIRS space elements and Defense Support Program (DSP) satellites. This PE, combined with PE #603441F, funds the SBIRS Low Program Definition Risk Reduction (PDRR) activities and leads to Engineering, Manufacturing and Development (EMD). SBIRS Low is the LEO component of SBIRS.

(U) FY 1998 (\$ in Thousands):
 – (U) \$0 Not Applicable

(U) FY 1999 (\$ in Thousands):
 – (U) \$29,106 Program Definition
 – (U) \$ 3,000 Radiation Hardened Parts
 – (U) \$ 92 Program Office Activities
 – (U) \$ 1,020 Identified as a source for Small Business Innovative Research (SBIR)
 – (U) \$33,218 Total

(U) FY 2000 (\$ in Thousands):
 – (U) \$ 74,651 Program Definition
 – (U) \$ 3,000 Radiation Hardened Parts
 – (U) \$ 77,651 Total

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<p>(U) <u>FY 2001 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) \$ 3,000 Radiation Hardened Parts – (U) \$ 17,804 Program Office Activities – (U) 127,129 Program Definition – (U) \$147,933 Total <p>(U) B. Budget Activity Justification:</p> <p>(U) This Program Element is in Budget Activity 5, Engineering and Manufacturing Development because it funds Program Definition efforts including initial system design and Engineering and Manufacturing Development activities for the LEO portion of the SBIRS program</p> <p>(U) C. Program Change Summary (\$ in Thousands)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%; text-align: center;"><u>FY 1998</u></th> <th style="width: 10%; text-align: center;"><u>FY 1999</u></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 20%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 1999 PB)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">33,328</td> <td style="text-align: center;">79,064</td> <td style="text-align: center;">148,749</td> <td style="text-align: center;">2,760,563</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">0</td> <td style="text-align: center;">33,328</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Cong Gen Reductions</td> <td></td> <td style="text-align: center;">-110</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. SBIR</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 1999 PB</td> <td></td> <td></td> <td style="text-align: center;">-1,413</td> <td style="text-align: center;">-816</td> <td style="text-align: center;">131,742</td> </tr> <tr> <td>(U) Current Budget Submit/FY 2000 PB</td> <td style="text-align: center;">0</td> <td style="text-align: center;">33,218</td> <td style="text-align: center;">77,651</td> <td style="text-align: center;">147,933</td> <td style="text-align: center;">2,892,305</td> </tr> </tbody> </table> <p>(U) Significant Program Changes:</p> <p style="padding-left: 20px;">Funding: FY99 \$1.020M identified as a source for Small Business Innovative Research (SBIR).</p> <p style="padding-left: 20px;">Schedule: Program restructured and SBIRS Low first launch delayed from 4QFY04 to 4QFY06. EMD contract award is moved from 2QFY01 to 4QFY02.</p> <p>(U) D. Other Program Funding Summary (\$ in Thousands)</p>				<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 1999 PB)	0	33,328	79,064	148,749	2,760,563	(U) Appropriated Value	0	33,328				(U) Adjustments to Appropriated Value						a. Cong Gen Reductions		-110				b. SBIR						c. Omnibus or Other Above Threshold Reprogram						d. Below Threshold Reprogram						(U) Adjustments to Budget Years Since FY 1999 PB			-1,413	-816	131,742	(U) Current Budget Submit/FY 2000 PB	0	33,218	77,651	147,933	2,892,305
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<div style="display: flex; justify-content: space-between;"> Project 4598 Page 2 of 4 Pages Exhibit R-2 (PE 0604442F) </div>																																																														

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE February 1999		
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604442F Space Based Infrared Sys(SBIRS) Low			PROJECT 4598		
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Total Cost</u>
(U) PE 35922F - SBIRS Low Prod						33,100	101,400	328,390	3,999,500
<u>Related RDT&E:</u>									
(U) PE 0603441F - SBIRS Dem/Val									
(U) PE 0305911F - DSP									
(U) PE 0604441F - SBIRS High EMD									
 (U) E. <u>Acquisition Strategy:</u>									
(U) The SBIRS program is managed through a single consolidated System Program Office (SPO) at the Space and Missile Systems Center, Los Angeles Air Force Base, CA. SBIRS Low will begin program definition activities in FY99 with award of up to two firm fixed price contracts. Program Definition will be followed by a competitive contract for EMD. The SBIRS Low EMD contract is scheduled for award in 4QFY02 with deployment of the SBIRS Low satellites beginning in 4QFY06.									
 (U) F. <u>Schedule Profile</u>									
		<u>FY 1999</u>			<u>FY 2000</u>			<u>FY 2001</u>	
	1	2	3	4	1	2	3	4	
(U) Program Definition Contract Award			X						
(U) System Requirements Review							X		
(U) Preliminary Design Review (2QFY02)									
(U) EMD Contract Award (4QFY02)									
(U) EMD Critical Design Review (3QFY03)									
(U) SBIRS Low First Launch (4QFY06)									

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 1999	
BUDGET ACTIVITY 5 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604442F Space Based Infrared Sys(SBIRS) Low					PROJECT 4598	
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U)	Program Definition				0	\$29,106	\$74,651	\$127,129			
(U)	Radiation Hardened Parts				0	\$3,000	\$3,000	\$3,000			
(U)	Program Office Activities				0	\$92	\$0	\$17,804			
(U)	Identified as a source for SBIR					1,020					
(U)	Total				0	\$33,218	\$77,651	\$147,933			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government	Contract Method/Type	Award or Obligation	Performing Activity	Project Office	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>FY 1998</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>
Identified as a source for SBIR							1,020				1,020
<u>Product Development Organizations</u>											
PDRR / EMD	Various	FY99			0	0	32,106	74,651	127,129	2,323,103	2,553,989
Rad Hard Parts	TBD	TBD			0	0	3,000	3,000	3,000	6,000	15,000
<u>Support and Management Organizations</u>											
Program Support	Various	Various	N/A	N/A	0	0	92	0	17,804	304,400	322,296
<u>Test and Evaluation Organizations:</u>											
Not Applicable											
Government Furnished Property:											
Not Applicable											
Identified as a source for SBIR							1,020				1,020
Subtotal Product Development					0	0	32,198	77,651	130,129	2,329,103	2,568,989
Subtotal Support and Management					0	0	92	0	17,804	304,400	322,296
Subtotal Test and Evaluation					0	0	0	0	0	0	0
Total Project					0	0	33,218	77,651	147,933	2,633,503	2,892,305
Project 4598											